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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,196	10/03/2003	Mohammad Masghati	14342	9681
7590	12/01/2004		EXAMINER	
PAUL F. DONOVAN ILLINOIS TOOL WORKS INC. 3600 WEST LAKE AVENUE GLENVEIW, IL 60025			LEJA, RONALD W	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	MASGHATI, MOHAMMAD	
10/679,196	Examiner	Art Unit
Ronald W Leja	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 20 January 2004.  
2a) This action is FINAL.                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-22 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on 12 January 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/12/2004.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of Independent Claims 1, 9 and 16 each contain the phrase, "and the like", which renders the claim indefinite as one does not know the metes and bounds of the claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-9, 12-16 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Curry (6,266,223).

Curry discloses (see Fig. 1) tip and ring lines having first and second isolation circuits (38,38'), third and fourth isolation circuits, voltage suppressor means (40) and for Claims 8, 15 and 22, second voltage suppressor means (64). The first thru fourth isolations circuits can be PTCRs (see Fig. 2) (for Claim 16); these are also considered to be "current limiting devices" for Claim 1 and

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"fuse elements" for Claim 9. Voltage suppressor means are disclosed as being gas tubes, transient voltage suppressor thyristors, solid-state devices, which encompass sidactor devices and the use of TransZorbs, which are SAS devices for Claims 5-7, 12-14 and 19-21.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 10, 11, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry in view of Nabell et al. (6,377,435) and Takeuchi (6,040,972).

These set of claims are drawn to rated current value relationships between the first and second and the third and fourth current limiting devices. Curry disclose that the devices should be selected so as to not degrade signal performance during an OFF state and that the devices should be selected to hold the surge voltages at levels sufficient to trigger the surge suppressor means (i.e. gas tubes, diodes etc...), but is otherwise silent. Nabell et al. teach that there should be a relationship between the first and second current limiting elements to those of the third and fourth current limiting elements for various clamping voltages. Takeuchi teach that current limiting elements (15 & 19) are chosen with higher maximum ratings than current limiting elements (26 & 28) (see Col. 3, lines

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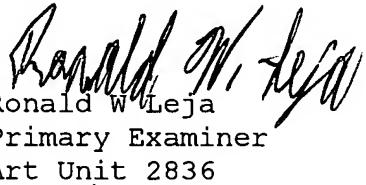
39-57). It is therefore, the opinion of the Examiner that it would have been obvious to have the first and second current limiting elements having higher ratings than the second and third current limiting elements as the surge event originating on the tip or ring line is firstly to be handled by the first and/or second current elements, thus at higher currents, absorbed by the surge suppressor, leaving a lower amount of surge energy for the third and/or fourth current limiting elements and as taught by Takeuchi, the third and fourth current limiting elements should be selected so impedance imbalance between the tip and ring lines can be reduced. As far as specific values as found in Claims 3, 4, 11, and 18, such values are considered to be obvious as optimization within the Prior Art conditions or through Routine Experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W Leja whose telephone number is (571)272-2053. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ronald W. Leja  
Primary Examiner  
Art Unit 2836

rwl

November 29, 2004

  
11/29/04